REPUBLIC SERVICES, INC.

September 30, 2011

Carla Peterman, Commissioner & Presiding Member
Renewables Committee
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

James D. Boyd, Vice Chair & Associate Member
Renewables Committee
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: Docket No. 02-REN-1038 and 11-RPS-01, RPS Proceeding

Dear Commissioner Peterman and Vice Chair Boyd:

Republic Services, Inc. (RSI) provides these comments to the California Energy Commission (CEC) on the Renewable Portfolio Standard (RPS) Proceeding and the Staff Workshop on the Use of Biomethane Delivered via the Natural Gas Pipeline System for California's Renewables Portfolio Standard. RSI appreciates the efforts of CEC Members and Staff in conducting this workshop and the opportunity to provide the following comments.

Republic Services, Inc. provides non-hazardous solid waste collection services for commercial, industrial, municipal, and residential customers through 348 collection companies in 40 states. Republic also owns or operates 204 transfer stations, 193 solid waste landfills, and 76 recycling facilities. Republic provides solid waste handling and recycling services to millions of single family and multi-family customers under terms of contracts with more than 2,800 municipalities for waste collection and residential services. Many of these facilities operate in California.

Republic is also a leader in renewable energy from landfill gas (LFG) generated at our landfills. Nationwide we have 70 LFG to energy (LFGTE) projects that produce 325 MW of renewable power and 55,000 cubic feet per minute of fuel that displaces natural gas or is processed into biomethane. In California alone we have 6 operating LFGTE projects and 3 more in permitting design or construction. The operating projects provide 36.3 MW of renewable power to the California market and RPS, and the ones coming on line in the next 2 years will add 39.8 MW more. The 76.1 MW of renewable power makes Republic one of the leading providers of LFG based renewable energy in California

On September 20, 2011, the CEC conducted a workshop on two distinct topics:

1. The eligibility requirements and process for certifying out-of-state pipeline biomethane as eligible for California's RPS; and
2. The barriers to receipt of in-state biomethane into California's natural gas pipeline system.

The following comments address RSI's position on both issues.

As a landfill operator and producer of renewable energy in California, RSI naturally supports the further development of biomethane resources as an essential part of California's renewable energy mix. As a business operator and industrial ratepayer in California, RSI appreciates the fact that achieving a 33% Renewable Portfolio Standard will be no easy task , but recognize and strongly support achieving the requirement The need for a flexible RPS standard will be essential to insure that California has a reliable, affordable, and environmentally sustaining renewable energy mix. We believe that biomethane will compliment other renewable energy resources such as solar, wind and geothermal by providing a clean reliable resource that can help offset issues such as reliability, intermittency and storage issues often associated with other renewable resources.

1. The eligibility requirements and process for certifying out-of-state pipeline biomethane as eligible for California's RPS.

RSI has renewable landfill gas biomethane projects under development at several of our landfills in the United States. While most of those projects are in other states, we would actively pursue similar projects at our California landfills if impediments to pipeline injection were removed. Our experience with biomethane projects in other states will allow RSI to be more prepared and to more rapidly pursue biomethane projects at our California landfills should those impediments to pipeline injection be removed.

At many landfills across the country, it is required by law and is common practice to flare landfill gas as a means of destruction. No energy is produced from this practice. Where possible, RSI has contracted with energy producers to use landfill gas for electricity production through reciprocating engines or gas turbines. However, ever increasing air quality standard and, poor economics where no RPS exists are making those projects more difficult to complete. In many cases, our only option, other than flaring, is biomethane injection projects. In the current energy economic environment (natural gas < $4.00/mmbtu) the only mechanism that supports these renewable gas projects at our landfills is the California RPS.

All of RSI's planned biomethane projects will use landfill gas that is currently being flared and none of those projects will proceed without RPS certification as a Bucket 1 resource. Therefore, we support the CEC's quite reasonable conclusion that if a biomethane producer enters into an auditable contract with a California LSEs to buy the producer's biomethane delivered by means of the interstate pipeline system, the power that is subsequently generated in California properly qualifies for bundled, or Bucket No. 1, treatment under the RPS.

Currently, California Energy Commission ("CEC")[1] and California Public Utilities Commission (CPUC)[2] policies sanction California load serving entity ("LSE") procurement of biomethane (pipeline quality renewable biogas) from out-of -state producers. LSE's that burn the biomethane at their in-state renewable generation facilities produce bundled (sometimes referred to as "Bucket Number 1") renewable power and receive the associated Renewable Energy Credits (RECs). Thus, they generate bundled RECs under the RPS program that they can use to meet their compliance requirements or trade to other parties.

The CEC's *Renewable Portfolio Standard Eligibility Guidebook, 4th Edition (RPS Guidebook)* establishes the rules governing these transactions, has audited representative transactions, and has confirmed "Eligible Renewable Resource" status for out-of-state biomethane. The CEC requires that the biomethane producer must not only demonstrate a physical pathway on the interstate natural gas pipeline system for the transportation of the biomethane to the California market, but also requires the producer to submit contracts for physical transportation of the biomethane along the physical pathway. We believe that these standards are reasonable and protect the integrity of the California RPS process.

The physical pathway requirement for the delivery of out-of-state biomethane to in-state facilities and the current structure approved by the CEC, ensures that the biomethane delivered is injected into the single natural gas resource pool that serves all of California. As was shown in several presentations at the September 20, 2011 Workshop, the California market is primarily supplied with natural gas delivered from out-of-state (Texas, the Rockies and Canada) – in fact nearly 97%. This gas arrives in California via the interstate natural gas pipeline system in varying quantities every day. Biomethane producers have the ability, at many of their projects, to contract to have their biomethane shipped by the interstate pipeline system that serves California's energy demands Incentivizing the delivery of biomethane extends the life of the natural gas resource pool that California depends upon and reduces the environmental impact of California's burning of natural gas. The current structure put into place by the CEC and approved by the Commission has created real investment in the renewable energy infrastructure that California depends upon.

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[1] *See, California Energy Commission Renewables Portfolio Standard Eligibility Guidebook (Fourth Edition),* January 2011 ("Guidebook").
[2] *Resolution Number 4076,* issued May 24, 2007.

The existing determinations and rulings by the CEC and the Commission have enabled biomethane producers to achieve a level of success over the past three years that is unprecedented in the history of the industry – since only in California do producers have a clear path to a market that provides incentives for the low-carbon and renewable attributes associated with this fuel.

Out-of-state biomethane provides a source of renewable energy that can be used to meet LSEs RPS compliance obligations at a low relative price (as compared to other renewable resources available in commercial quantities) and with maximum flexibility, as it is fungible and can be stored on site or in the pipeline at reasonable cost

Biomethane is produced constantly and does not suffer the variability of wind and solar power. It can be used to shape and firm solar and wind power supply, helping address one of the fundamental challenges of large-scale deployment of renewable power.

The available supply of out-of-state biometbane to fuel in-state generators promotes price competition and reduces costs to California ratepayers associated with the state's RPS program. Biomethane can be distributed to renewable electricity generation facilities without any significant new investment in transmission infrastructure as it can be transported in the existing natural gas pipeline system. This is of obvious benefit to California ratepayers that must pay increasingly high power prices (including paying for new electricity transmission facilities) in order to obtain a higher percentage of renewable power.

The displacement of fossil fuel with a net zero emissions fuel also reduces greenhouse gas ("GHG") emissions associated with California's energy use. Obviously, GHG concentration and global climate change are global concerns and a reduction in emissions in one place is as of much value to California ratepayers as a reduction in any other.

There is reportedly as much as 7,000 MW of potential natural gas-fired power generation in California by renewable electricity generation facilities that can use biomethane to meet RPS requirements. The amount of biomethane that can be made available to California's LSEs pales in significance to the number of available generators that are fueled by natural gas. Over the next three to five years, there may be as much as 50,000 MMbtus a day of additional biomethane produced outside of California that could be made available to California's LSEs. Assuming an average efficiency power plant (7,185 BTUs/kWh) this equates to an additional 289 MWS of potential capacity – barely 4% of the total projected available capacity of 7,000 MW.

A criticism of groups against biomethane is that the actual green molecules coming in from out of state do not make it to the renewable generating location therefore, shouldn't count. In fact, unless the biomethane production facility is hard and direct piped to the generating facility, this is true for any biomethane facility. Indeed, this is also true for renewable power in general. Unless a user is hard and direct wired to a facility that produces green power, it is not getting the green electrons either. Therefore, it can be argued that all green power and energy is, in a way, paper based.

For these reasons, RSI supports the current flexible standards imposed on biomethane eligibility by the *RPS Guidebook*. We oppose efforts to impose additional geographic restriction or contracting restrictions that will place unreasonable limits on RPS certification of out-of-state biomethane.

2. *The barriers to receipt of in-state biomethane into California's natural gas pipeline system.*

It is also critical to note that, due to long-standing prohibitions on the injection of landfill gas into California's natural gas system and difficulties obtaining interconnect agreement with California utilities, there are today no operating in-state projects injecting biomethane into California's gas pipeline system. Practically speaking, the only biomethane available to California LSEs is produced out-of-state.

California Health and Safety Code Sections 25420-25421 (Hayden Amendment) imposes restrictions on the potential presence of vinyl chloride in biomethane derived from landfill gas. Following passage of the Hayden Amendment, the CPUC adopted a standard of 1,170 parts per billion by volume for vinyl chloride in landfill gas biomethane. The Hayden Amendment also imposes a $2500 per day penalty for exceeding the standard and requires extensive and expensive testing. Utility tariffs currently contain provisions that prohibit injection of landfill gas into the state natural gas pipeline system.

We acknowledge that pipeline safety is a major concern in California and across the United States. However, we believe that the current restrictions on landfill gas biomethane in California are unnecessarily restrictive and should be updated based on more current and accurate science. As reported during the September 20th Workshop, the Gas Technology Institute is conducting a detailed study and analysis of landfill biogas sponsored by the U.S. Department Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA). The results of that study will be released in late 2011, CEC and CPUC should carefully study and consider the findings, and the study should be the basis for revising California's landfill biogas standards.

Again, we appreciate this opportunity to comment. As mentioned above, we believe that biomethane, both in-state and out-of-state is an essential component of California's efforts to achieve a 33% RPS. We look forward to working with the CEC to accomplish that goal.

Sincerely,

William Held
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